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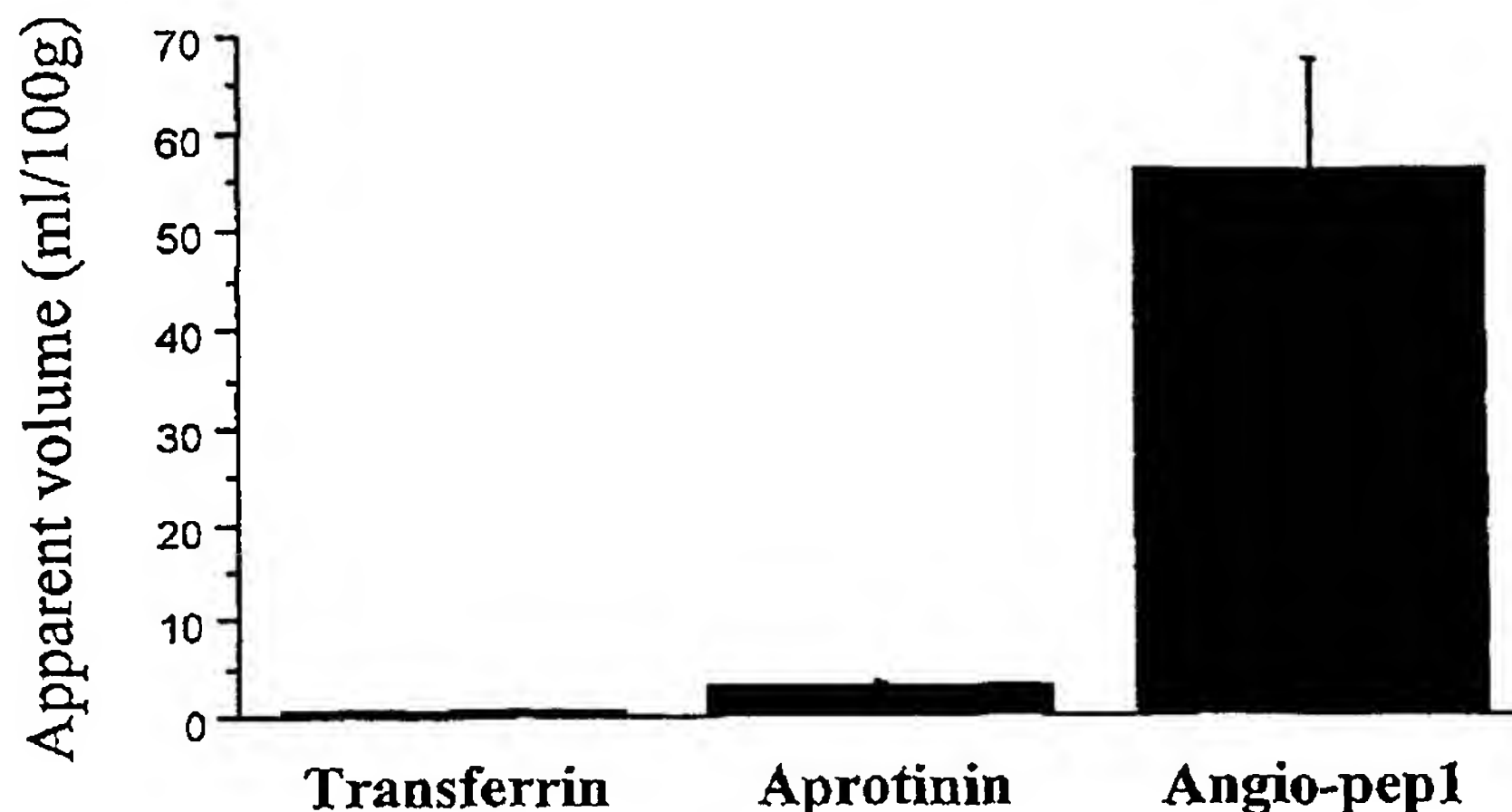
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[Continued on next page]

(54) Title: APROTININ AND ANGLOS AS CARRIERS ACROSS THE BLOOD-BRAIN BARRIER



(57) Abstract: The present invention relates to improvements in the field of drug delivery. More particularly, the invention relates to a non-invasive and flexible method and carrier for transporting a compound or drug across the blood-brain barrier of an individual. In particular the present invention relates to a carrier for transporting an agent attached thereto across a blood-brain barrier, wherein the carrier is able to cross the blood-brain barrier after attachment to the agent and thereby transport the agent across the blood-brain barrier. The present invention relates to improvements in the field of drug delivery. More particularly, the invention relates to a non-invasive and flexible method and carrier for transporting a compound or drug across the blood-brain barrier of an individual. In particular the present invention relates to a carrier for transporting an agent attached thereto across a blood-brain barrier, wherein the carrier is able to cross the blood-brain barrier after attachment to the agent and thereby transport the agent across the blood-brain barrier.

WO 2004/060403 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K47/48 A61P25/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data, EMBASE, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|--|
| X | <p>DE 199 53 696 A (CHERKASKY ALEXANDER) 10 May 2001 (2001-05-10)</p> <p>column 1, lines 15-32; claim 3; figure 1 ----- -/--</p> | <p>1-4, 7-21, 24-38, 41-53, 56-67, 70-78, 80-102</p> |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|--|
| A | <p>WO 02/33090 A (PROCYON BIOPHARMA INC) 25 April 2002 (2002-04-25)</p> <p>page 1, lines 42,43; claims 12,22,36,46,52,58,75,82,88; example 18</p> <p>-----</p> | <p>1-5, 7-22, 24-39, 41-54, 56-68, 70-78, 80-102</p> |
| A | <p>GUILLOT F L ET AL: "ANGIOTENSIN PEPTIDE REGULATION OF BOVINE BRAIN MICROVESSEL ENDOTHELIAL CELL MONOLAYER PERMEABILITY" JOURNAL OF CARDIOVASCULAR PHARMACOLOGY, NEW YORK, NY, US, vol. 18, no. 2, 1991, pages 212-218, XP008030278 ISSN: 0160-2446 abstract page 217, column 2</p> <p>-----</p> | <p>1-5, 7-22, 24-39, 41-54, 56-68, 70-78, 80-102</p> |
| P,Y | <p>KOBAYASHI H ET AL: "THE PROTEASE INHIBITOR BIKUNIN, A NOVEL ANTI-METASTATIC AGENT" BIOLOGICAL CHEMISTRY, XX, XX, vol. 384, no. 5, 1 May 2003 (2003-05-01), pages 749-754, XP008030275 ISSN: 1431-6730 abstract; figure 2</p> <p>-----</p> | <p>1-5, 7-22, 24-39, 41-54, 56-68, 70-78, 80-102</p> |

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 5, 22, 39, 54, 68 complete; 1-4, 7-21, 24-38, 41-53, 56-67, 70-78, 80-102 partially

Carrier for transporting an agent attached thereto across the blood brain barrier wherein the agent is anticancer agent paclitaxel. Conjugate comprising the carrier and paclitaxel, pharmaceutical composition and use of the same for neurological disease (brain tumour, brain metastasis, schizophrenia, epilepsy, Alzheimer's disease, Parkinson's disease, Huntington's disease, stroke and obesity).

2. claims: 1-4, 6-21, 23-38, 40-53, 55-67, 69-79, 80-102 partially

Carrier for transporting an agent attached thereto across the blood brain barrier wherein the agent is a green fluorescent protein, a histag protein, and beta galactosidase. Conjugate comprising the carrier and the protein agent, pharmaceutical composition and use of the same for neurological disease (brain tumour, brain metastasis, schizophrenia, epilepsy, Alzheimer's disease, Parkinson's disease, Huntington's disease, stroke and obesity)

3. claims: 1-4, 6-21, 23-38, 40-53, 55-67, 69-79, 80-102 partially

Carrier for transporting an agent attached thereto across the blood brain barrier wherein the agent is a green fluorescent protein, a histag protein, and beta galactosidase. Conjugate comprising the carrier and the protein agent, pharmaceutical composition and use of the same for neurological disease (brain tumour, brain metastasis, schizophrenia, epilepsy, Alzheimer's disease, Parkinson's disease, Huntington's disease, stroke and obesity)
